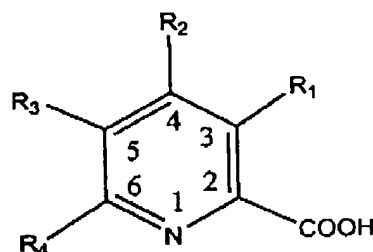


Listing of Claims:

Claims 1-17 (canceled)

Claim 18 (previously amended) A method of preventing or reversing conformationally altered protein assembly or aggregation in an animal, comprising:

administering to the animal a compound of the following structure:



wherein R_1 , R_2 , R_3 and R_4 are selected from a group consisting of an oligopeptide, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine and hydrogen, thereby preventing or reversing conformationally altered protein assembly or aggregation.

Claim 19 (previously amended) The method of claim 18, wherein R_3 is a butyl group.

Claim 20 (previously amended) The method of claim 18, wherein said conformationally altered protein is at least one protein selected from a group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7.

Claim 21 (canceled)

Claim 22 (previously amended) The method of claim 18, wherein said protein contains a biologically active variant of at least one protein selected from a group consisting of

SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7.

Claim 23 (previously amended) The method of claim 18, wherein the picolinic acid, analogs or derivatives, is administered to an animal by injection.

Claim 24 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered to an animal orally.

Claim 25 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered to an animal buccally.

Claim 26 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered to an animal parenterally.

Claim 27 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered to an animal transdermally.

Claim 28 (previously amended) The method of claim 27, wherein the administration comprises placing a permeable membrane in fluid communication with a solution comprising said picolinic acid, its analogs or derivatives, directly on the skin of said animal.

Claim 29 (previously amended) The method of claim 27, wherein the step of administering picolinic acid, its analogs, or derivatives to an animal transdermally is enhanced by methods selected from a group consisting of iontophoresis, phonophoresis and by chemical penetration enhancers selected from a group consisting of fatty acids, fatty alcohols and terpenes.

Claim 30 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered to the animal rectally.

Claim 31 (previously amended) The method of claim 30, comprising administering a solution comprising picolinic acid, its analogs or derivatives, in combination with a glyceride, by suppository into the rectum of said animal.

Claim 32 (previously amended) The method of claim 18, wherein the picolinic acid, its analogs or derivatives, is administered as a depot preparation.

Claim 33 (previously amended) The method of claim 32, comprising administering said picolinic acid, or an analog or derivative thereof by implantation or intramuscularly injecting a solution comprising picolinic acid, its analogs or derivatives, in combination with a polymeric or hydrophobic material.

Claim 34 (previously amended) The method of claim 33, comprising administering said picolinic acid, its analogs, or derivatives by implantation or intramuscularly injecting a solution comprising picolinic acid, its analogs, or derivatives, in combination with a polymeric material, wherein the polymeric material is at least one selected from a group consisting of an emulsion in an oil and an ion exchange resin.

Claim 35 (previously amended) The method of claim 33, comprising administering said picolinic acid, its analogs, or derivatives by implantation or intramuscularly injecting a solution comprising picolinic acid, its analogs, or derivatives, in combination with a hydrophobic material, wherein the hydrophobic material is a sparingly soluble salt of a picolinic acid anion, analogs or derivatives thereof.

Claim 36. (previously amended) The method of claim 18, further comprising disrupting a metalloprotein complexed with a transition metal ion and at least one protein sequence selected from a group consisting of SEQ ID NO:1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7.

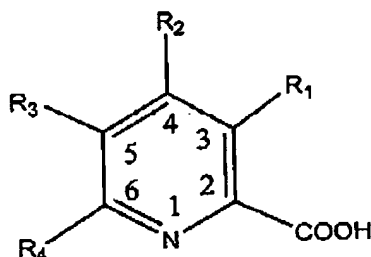
Claim 37 (canceled)

Claim 38 (previously amended) The method of claim 18, further comprising disrupting a metalloprotein complexed with a transition metal ion and a biologically active variant of at least one protein selected from a group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6 and SEQ ID NO: 7.

Claim 39 (previously amended) A method of preventing or reversing conformationally altered protein assembly or aggregation in an animal comprising administering to the animal a composition comprising fusaric acid, thereby preventing or reversing conformationally altered protein assembly or aggregation.

Claim 40 (previously amended) A method of treating conformationally altered protein assembly or aggregation in an animal comprising:

administering to the animal a therapeutically effective amount of a compound represented by the following structure:



wherein R₁, R₂, R₃ and R₄ are selected from the group consisting of an oligopeptide, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine and hydrogen, thereby preventing or reversing conformationally altered protein assembly or aggregation.

Claim 41 (previously amended) The method of claim 40 wherein R₃ is a butyl group.

Claim 42 (previously amended) The method of claim 40, wherein the administration of said therapeutically effective amount of said composition comprises:

administering said therapeutically effective amount of said composition to cells within said animal.

Claim 43 (previously amended) The method of claim 42, wherein the administration of said therapeutically effective amount of said composition to cells comprises:

administering the composition to cells which are within an animal selected from a group consisting of a human, a cow, a sheep, a deer and a goat.

Claim 44 (previously amended) The method of claim 43, wherein the administration of said therapeutically effective amount of said composition to cells within a human comprises:

administering the composition to brain tissue cells within said human.

Claim 45 (previously amended) The method of claim 40, further comprising adding said therapeutically effective amount of said compound to a treatment regimen of at least one or more therapeutic agents.

Claim 46 (previously amended) The method of claim 40, wherein the conformationally altered protein assembly or aggregation is caused by a disease selected from a group consisting of Alzheimer's disease, spongiform encephalopathy, cerebral amyloid angiopathy, Parkinson's disease, frontal temporal dementia, Pick's disease, amyotrophic lateral sclerosis, Huntington's disease and Creutzfeldt-Jakob disease.

Claims 47-48 (canceled)